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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/579,803	05/26/2000	Takahiro Fukuhara	450101-02516	8527

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EXAMINER

WU, JINGGE

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 08/13/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/579,803

Applicant(s)

FUKUHARA ET AL.

Examiner

Jingge Wu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Response to Amendment

1. Applicants' response to the last Office Action, filed June 19, 2003 has been entered and made of record.
2. Applicants' amendment has required new grounds of rejection. New grounds rejection are therefore presented in the Office Action. Applicant's arguments with respect to claims 1-18 have been fully considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6473528 to Li et al. (a reference of record) in view of US 6021224 to Castelli et al.

As to claim 1, Li discloses a wavelet inverse transform device comprising:
decoding object coefficient extracting means for extracting only coefficients necessary for decoding a specified area (object) from wavelet transform coefficients (col. 5 line 18-col. 6 line 18, col. 8 lines 20-30); and

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wavelet inverse transform means for inverse transforming coefficients extracted from the decoding object coefficient extracting means (col. 5 line 18-col. 6 line 18, col. 8 lines 20-30),

wherein, the decoding object coefficient extracting means extracts transform coefficients not only inside the specified area but also those outside the area (col. 5 line 18-col. 6 line 18, col. 8 lines 20-30).

Even though Li does not explicitly mention inverse transform only coefficients of object, this limitation is inherent because Li encodes only object through his wavelet method and thus, applying decoding inverse transform to only coefficients of object (abstract, col. 8 lines 15-30).

Even if assuming Li does not teach the limitation, for the purpose of argument, this limitation is well known in the art.

Castelli, in an analogous environment, discloses selecting and retrieving only a portion of the compressed wavelet coefficients and "just decoding the blocks of that contain wavelet coefficients corresponding to the required portion and inverting the wavelet transform coefficient for these coefficients, only" (col. 10, lines 12-40).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the scheme of Castelli in the device of Li in order to efficiently code/decode selected portions of the image (Castelli, col. 1).

As to claim 2, Li further discloses a object area determining means for determining a decoding object area for extracting the coefficients (col. 5 line 18-col. 6 line 65, col. 8 lines 20-30, the "do not care" node is not belong to object area).

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As to claims 3 and 5, Li further discloses a plurality of splitting levels for the transform coefficients and include inside and outer rim side of hierarchical levels based on the specified area (col. 6 line 23-col. 7 line 16).

As to claim 4, Li further discloses the transform coefficients on the outer rim side of the specified area are extracted corresponding to the number of the impulse response of a filter used in the IWT (col. 6 line 10-col. 7 line 16, col. 8 lines 20-30).

As to claims 6-7, Li further discloses coefficients in a valid range (object area) based on overlap holding processing is performed from one level of the wavelet splitting to another (col. 6 line 23-col. 7 line 16).

As to claim 8, the claim is corresponding method claim to claims 1 and 3. The discussions are addressed with regard to claims 1 and 3.

5. Claims 9-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li and Castelli, further in view of US 5933535 to Lee et al. (a reference of record).

As to claim 9, the combination of Li and Castelli discloses all limitations (see discussion with regard to claims 1 and 3) except entropy decoding.

Lee, in an analogous environment, discloses the entropy decoding used with IWT (col. 28 line 61-col. 29, line 3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the entropy scheme of Lee in the device of Li in order to efficiently code/decode the image.

As to claim 10, Li and Lee do not explicitly mention dequantizing means.

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Examiner takes Official Notice that this feature is notoriously well known in the art.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the dequantization scheme in the device of Li in order to efficiently code/decode the image.

As to claims 11-16, the discussions are addressed with regard to claims 3-7.

As to claims 17-18, the claims are corresponding method claims to claims 9-10. The discussions are addressed with regard to claims 9-10.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

7. Any inquiry concerning this communication or earlier communications should be directed to Jingge Wu whose telephone number is (703) 308-9588. He can normally be reached Monday through Thursday from 8:00 am to 5:30 pm. The examiner can be also reached on second alternate Fridays.

Any inquiry of a general nature or relating to the status of this application should be directed to TC customer service whose telephone number is (703) 306-0377.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Amelia Au, can be reached at (703) 308-6604.

The Working Group Fax number is (703) 872-9314.

Jingge Wu

Primary Patent Examiner

